

U.S. EPA CERCLA SECTION 104(e) INFORMATION REQUEST QUESTIONS and RESPONSES

Site: Lower Duwamish Waterway Superfund Site (LDW), Seattle, WA

DERP-FUDS Site Number F10WA041600, Seattle Army Chemical Plant, Seattle, WA

1. Respondent Information

a. Provide the full legal name and mailing address of the Respondent.

Colonel Anthony Wright
District Commander, USACE Seattle District
P.O. Box 3755
Seattle, WA 98124

b. For each person answering these questions on behalf of Respondent, provide:

- i. full name;**
- ii. title;**
- iii. business address; and**
- iv. business telephone number and FAX machine number.**

The information requested for each of the persons responsible for answering these questions is provided under separate cover for personal privacy purposes.

c. If Respondent wishes to designate an individual for all future correspondence concerning this matter, please indicate here by providing that individual's name, address, telephone number and fax number.

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District Commander, USACE Seattle District
P.O. Box 3755
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d. State the dates during which the Department of Defense (DOD) held any property interests at or within one-half mile of the FUDS.

Available documentation indicates that DOD acquired property from the Carlisle Lumber Company for a Chemical Warfare Service Plant in 1943. In 1963, the site was declared excess and conveyed by GSA to the Port of Seattle in 1964. To the extent available, documents showing when the site was acquired and disposed of are hyperlinked to the Real Estate spreadsheet included in the CD accompanying our Response.

See the following documents available on the CD provided with this response:

- Memorandum, from the War Dept., Office of the Chief of Engineers, D.C., to Commanding General, Services of Supply, dated March 6, 1943, re: acquisition of land from the Carlisle Lumber Company for a Chemical Warfare Service Plant, Seattle, WA.
- Quitclaim Deed, GSA's conveyance of the property acquired from W.A. Carlisle and W.A. Carlisle, Jr. and Henri W. Carlisle by Statutory Warranty Deed dated July 27, 1943 to the Port of Seattle, executed June 1, 1964, King Co., WA.

e. State the dates during which DOD conducted any activities at or within one-half mile of the FUDS.

The Army awarded an educational contract to Carlisle Lumber Co. in 1940 to construct the plant and develop the process to produce non-coconut charcoal and whetlerite. In August 1942, the Army issued a production contract to Carlisle Lumber Co., which it completed in February 1943. From March 1943 until Nov. 1944, the plant was operated by the Crown Zellerbach Corp. under contract to the Army, which produced activated carbon and whetlerite. After Nov. 1944, the plant was placed in standby, and at the close of WWII, Mr. Jack R. Poore was awarded a contract for maintaining the plant in standby storage for war reserve and meanwhile, the plant was made available for commercial use. In Nov. 1946, Reichhold Chemicals, Inc. submitted the highest bid (for a 15-year period) for the plant, proposing to use the plant for manufacturing resins for use in the plywood industry. In Nov. 1961, the Corps sought a qualified lessee for the plant and Reichhold Chemical Inc. indicated that it was not interested in renewing the lease.

See the following document available on the CD provided with this response:

- DERP-FUDS Ordnance and Explosive Waste Chemical Warfare Materials, Archives Search Report, Seattle Chemical Warfare Service Plant, King Co., WA, Site No. F10WA041600, dated June 1994.

f. Describe the nature of DOD's activities at the FUDS or within one-half mile of the FUDS.

See our response, and referenced document, to Question 1.e., above.

g. In relation to your answer to the previous question, identify all materials used or created by DOD's activities at the FUDS, including raw materials, commercial products, building debris, and other wastes.

The Seattle Army Chemical Plant produced Type A Whetlerite (activated carbon impregnated with copper through a chemical process). In Nov. 1943, the plant switched to producing ASC Whetlerite (in which silver and chromium VI were

also added to the carbon along with copper). Ammonia was also used in the process of making Whetlerite.

See the following document available on the CD provided with this response:

- Walk, Robert D. LTC, *The History of Military Mask Filters*, Army Chemical Review, Jan. 2003.

2. Site Activities and Interests

- a. Provide all documents in your possession or accessible to you regarding the ownership of the FUDS before, during and after DOD control, including, but not limited to, copies of deeds, sales contracts, leases, blueprints, “as-builts” and photographs.**

Any documents showing ownership or other real estate interests by DOD for the FUDS are hyperlinked to the spreadsheet included on the CD provided with this response.

- b. Provide all documents in your possession or accessible to you regarding environmental conditions at the FUDS before, during and after the relevant time period (see Definitions). “Environmental conditions” includes information relating to soil, sediment, water (ground and surface), and air quality. This may include, but not be limited to:**

- i. Any spill, leak, release or discharge of a hazardous substance, waste, or material at or near the FUDS;**

A 1945 Pollution Control Commission report stated that Crown Zellerbach Corp. was disposing of approximately 750 gallons of wash solution containing copper ammoniate about once a month into the Duwamish Waterway during its manufacturing of charcoal for gas masks and similar uses, from March 1943 until Nov. 1944.

See the following document available on the CD provided with this response:

- Foster, Richard F., *Sources of Pollution in the Duwamish-Green River Drainage Area*, Pollution Control Commission report, Dec. 6, 1945.

- ii. Occurrences of violations, citations, deficiencies, and/or accidents concerning the FUDS;**

There is no information available regarding any occurrences of violations, citations, deficiencies, and/or accidents that may have occurred at the FUDS.

iii. Remediation or removal of contaminated soils, sediments, or other media at the FUDS; and

A 2008 data report prepared for Glacier Northwest, Inc. by Anchor Environmental, L.L.C., regarding maintenance dredging completed to maintain berthing depths at Glacier's Seattle Cement Terminal (located on the west side of the Duwamish Waterway) found elevated concentrations of arsenic and zinc, and low levels of PCB's at the site.

See the following documents available on the CD provided with this response:

- Memorandum for Record, by the Dredged Material Management Program (DMMP) (USACE, WA Dept. of Ecology, and EPA), re: Determination on the suitability of proposed maintenance dredged material from the Glacier Northwest Seattle Cement Terminal Duwamish Waterway, Seattle, WA (Public Notice 92-2-00452) evaluated under CWA Section 404 for open-water disposal at the Elliott Bay DMMP site, dated April 9, 2003.
- 2008 Year 3 Data Report, Anchor Environmental, L.L.C. for Glacier Northwest, Inc., *2008 Year 3 Post- Construction Monitoring of Glacier Northwest Seattle Cement Terminal Maintenance Dredging and Capping Project*, dated Oct. 7, 2008.

iv. Investigations, inspections, sampling, and any associated reports regarding the FUDS and surrounding area.

With the exception of the Pollution Control Commission's 1945 report, discussed in our response to Question 2.b.i., above, there is no documentation available regarding investigations, inspections, sampling or any associated reports regarding the FUDS and surrounding area during the Army's tenure at the site.

c. Provide information on the condition of the FUDS when purchased or at the beginning of the relevant time period; describe the source, volume, and content of any fill material used during the construction of the buildings, including waterside structures such as seawalls, wharves, docks or marine ways. Additionally, describe any subsequent improvements, alteration, demolitions or additions to the physical structures or the property itself.

The following document presents a detailed inventory of buildings and equipment present when the DOD purchased the FUDS from the Carlisle Lumber Co.:

- Detail Inventory of Carlisle Company, 5900 W. Marginal Way, Seattle, WA, written under supervision of the Acting Head, Acquisition Section, Real Estate Branch, U.S. Engineers, War Dept., not dated.

d. Provide a brief summary of the activities conducted at the FUDS while under DOD's ownership or operation. Include any diagrams or charts of the activities conducted.

While under DOD's ownership or operation, the FUDS was involved in the production of activated charcoal and whetlerite (to which copper, silver, and chromium VI were added in the process). Additionally, the map referenced in this response indicates that presto logs were stored at the plant, and that a transformer enclosure, boiler room and shop, experimental laboratory, tanks, and carpenter shop existed at the plant. Further details involving any DOD activities that may have been involved with these structures and/or materials are not available.

See the following documents available on the CD provided with this response:

- Map, Dept. of the Army, Office of the District Engineer, Seattle District, Real Estate, Lease to Reichhold Chemicals Inc., Seattle Chemical Warfare Service Plant, dated May 24, 1948.

e. Provide all documents pertaining to sale, transfer, delivery, or disposal, of any hazardous substances, scrap materials, and/or recyclable materials at or to the FUDS.

With the exception of the wash solution containing copper ammoniate, discussed in our response to Question 2.b.i. above, and small sampling amounts of hazardous substances contained in the laboratory, there is no available information pertaining to the sale, transfer, delivery, or disposal, of any hazardous substances, scrap materials, and/or recyclable materials at or to the FUDS. See also our response to Question 1.g., below.

f. Provide all information or electrical equipment used at the FUDS, including transformers or other electrical equipment that may have contained polychlorinated biphenyls (PCBs).

Available documentation indicates that the following electrical equipment existed at the FUDS; however, it is not known whether any of this equipment contained PCBs:

- Ten transformers, Transformer Bldg. No. 7, Carlisle Co.;
- Two barrels (104 gallons each of transformer oil), Warehouse Bldg., No. 9, Carlisle Co.;
- Seven transformers and two barrels of transformer oil (when the site was leased to Reichhold); and

- Ten transformers (when the preliminary report of excess was prepared for the site in April 1968).

See the following documents available on the CD provided with this response:

- Memorandum, from War Dept., Corps of Engineers, Office of the Division Engineer, North Pacific Division, Portland, OR, to Judge Advocate General, U.S. Army, Washington D.C., re: re-execution of signature sheet of joint condition report and survey – marked Exhibit “B”, dated April 10, 1947.
- Report of Excess Real Property, to GSA, Auburn, WA, from Seattle District Engineer, U.S. Army Engineer, for Seattle Chemical Plant, dated April 15, 1968.

- g. Provide information on the type(s) of oils or fluids used for lubrication of machinery or other industrial purposes, and any other chemicals or products which are or may contain hazardous substances which are or were used at the FUDS for facility operations.**

Available documentation indicates that the following oils present at the FUDS when DOD purchased the property from the Carlisle Lumber Co.: salvac, ambrex, thread cutting, Quaker cutting, D.T. extra heavy general petroleum, Quaker SAE 20 truck, Mobile A. SAE40, Mobile oil C, and soluble oil; whether or not these oils contained PCBs or other hazardous substances is unknown. As discussed in our response to Question 1.g. above, hazardous substances were used in the production process of two types of Whetlerite at the plant. When the site was leased to Reichhold Chemicals, present at the plant was a 50-gallon chromic acid dissolving tank, two 5,000-gallon ammonia tanks, one 8,500-gallon steel underground oil storage tank, and one 2,000-gallon steel oil storage tank. Additionally, at time of leasing to Reichhold, three barrels of Bennett pump oil and two barrels of Bantam pump oil were present at the plant. The preliminary report of excess drafted in April 1968 lists an underground gasoline storage tank which has not been noted on any previous documentation regarding the site; thus, the tank may have been installed during Reichhold’s tenure at the plant.

See the following document available on the CD provided with this response:

- Report of Excess Real Property, to GSA, Auburn, WA, from Seattle District Engineer, U.S. Army Engineer, for Seattle Chemical Plant, dated April 15, 1968.

- h. Provide any site drainage descriptions, plans or maps that include information about storm drainage which includes, but is not limited to, above or below surface piping, ditches, catch basins, manholes, and treatment/detention or related structures including outfalls. If available, also include information about connections to sanitary sewer.**

There is limited available information regarding site drainage descriptions, storm drainage, or sanitary sewer connections at the FUDS. Maps from 1946 and 1948 depict a septic tank located in Bldg. No. 17. The reports of excess indicate that Reichhold improved the property by the addition of sewer systems, and depicts the septic tank in Bldg. 17, along with 1,350-ft. of sewage collection lines.

See the following documents available on the CD provided with this response:

- Map, drafted Nov.19, 1946 by the War Dept. O.C.E., Construction Division, Real Estate, depicting Seattle C.W.S. Plant and RR Spur.
- Map, drafted May 24, 1948 by the Dept of the Army, O.C.E., Seattle District, Real Estate, depicting Seattle Chemical Warfare Service Plant (Lease to Reichhold Chemicals, Inc.).

- i. **With respect to past site activities, please provide copies of any stormwater or drainage studies, including data from sampling, conducted at the FUDS. Also provide copies of any Stormwater Pollution Prevention or Maintenance Plans or Spill Plans that may have been developed for operations or activities at the FUDS.**

There is no documentation in the possession and control of the DOD to indicate that any past site activities involved the conduction of any stormwater or drainage studies, or any data collection from sampling, at the FUDS. There also is no available documentation indicating the existence of any Stormwater Pollution Prevention or Maintenance Plans or Spill Plans that may have been developed for operations or activities at the FUDS.

3. **Information About Others**

- a. **Describe any business relationship DOD may have had regarding the FUDS, or operations thereon, with others.**

See our response to Question 1.e, above, for descriptions of business relationships DOD may have engaged in at the FUDS.

- b. **Provide the names and last known address of any tenants or lessees, the dates of their tenancy and a brief description of the activities they conducted while operation on the FUDS.**

Names and addresses, if disclosed by the documents in the possession and control of DOD, of any tenants or lessees of the site, and the dates of their tenancy and activities conducted are as shown in the Outgrant columns of the spreadsheet for the FUDS that has been included on the CD provided with this Response.

- c. **If not already provided, identify and provide a last known address or phone number for all persons, including current and former employees or agents, other than attorneys, who have knowledge or information about the generation, use, purchase, storage, disposal, placement, or other handling of hazardous materials at, or transportation of hazardous materials to or from, the FUDS.**

DOD is not aware of any persons, including current and former employees or agents, whom have knowledge or information about the generation, use, purchase, storage, disposal, placement, or other handling of hazardous materials at, or transportation of hazardous material to or from, the FUDS. Furthermore, records discovered in this search did not identify the names, or addresses, of any such persons.

4. **Compliance with This Request**

- a. **Describe all sources reviewed or consulted in responding to this request, including, but not limited to:**
- i. **name and current job title of all individuals consulted;**
 - ii. **location(s) where all documents reviewed are currently kept.**

The sources reviewed or consulted in responding to this request include the following:

USACE Northwestern Division (Omaha, NE):

- DERP-FUDS Program Files;

USACE Kansas City District:

- DERP-FUDS Program Files

USACE Northwestern Division (Portland, OR) (formerly, North Pacific Division):

- DERP-FUDS Program Files

USACE Seattle District:

- Real Estate Division;
- Environmental Management Branch;
- Navigation Branch

Federal Records Center
Iron Mountain
19826 Russell Road
Kent, WA 98032

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Web source: <http://www.wood.army.mil/chmdsd/pdfs/2003%20Jan/Walk-Mask%20filters-03-01.pdf> (last visited May 3, 2010)